

What is claimed is:

1. In a communication system having a first predefined maximum system transmission power level for in-band transmissions, a method in a first communication device comprising:

determining that communication performance between a first communication device and a second communication device exceeds a performance threshold;

based on the determination, assigning a first band-edge channel for communication between the first communication device and the second communication device; and

the first communication device transmitting a first signal for reception by the second device via the first band-edge channel, the first signal transmitted at a reduced power level that is below the first predefined maximum system transmission power level.

2. The method of claim 1, further comprising:

the first communication device receiving a second signal transmitted by the second communication device, the second signal transmitted at or below the reduced power level.

3. The method of claim 2, further comprising:

the first communication device receiving the second signal via the first band-edge channel.

- 1 4. The method of claim 2, further comprising:  
2 the first communication device receiving the second signal via a second band-  
3 edge channel.
- 1 5. The method of claim 2, further comprising:  
2 the first communication device transmitting an indication to the second  
3 communication device indicating a maximum transmission power level to be  
4 used by the second device.
- 1 6. The method of claim 1, further comprising:  
2 providing a power control mechanism for assigning a temporary assigned power  
3 level for transmitting the first signal, the temporary assigned power level  
4 being less than the reduced power level.
- 1 7. The method of claim 6 further comprising:  
2 determining a minimum level of communication performance for transmitting the  
3 first signal; and  
4 selecting, based on determining the minimum level of performance, the temporary  
5 assigned power level.  
6
- 1 8. The method of claim 2, further comprising:

providing a power control mechanism for assigning a temporary assigned power level for transmitting the second signal, the temporary assigned power level being less than the reduced power level.

9. The method of claim 8 further comprising:  
determining a minimum level of communication performance for transmitting the second signal; and  
selecting, based on determining the minimum level of performance, the temporary assigned power level.

10. The method of claim 1, wherein communication performance is determined based on a metric selected from the group consisting of signal-to-noise ration (SNR), signal-to-interference-noise ration (SINR), received signal strength indication (RSSI), bit error rate (BER), and frame error rate (FER).

11. The method of claim 7, wherein communication performance is determined based on a metric selected from the group consisting of signal-to-noise ration (SNR), signal-to-interference-noise ration (SINR), received signal strength indication (RSSI), bit error rate (BER), and frame error rate (FER).

12. The method of claim 1, further comprising:  
after transmitting the first signal, determining that interference affecting communication between the first and second communication devices is above a threshold; and

increasing the amount of power used to transmit from the first communication device.

13. The method of claim 2, further comprising:  
after receiving the second signal, determining that interference affecting communication between the first and second communication devices is above a threshold; and  
increasing the amount of power used to transmit from the second communication device.

14. The method of claim 1 further comprising:  
providing the first predefined maximum system transmission power level for in-band transmissions from the first communication device to the second communication device;  
providing a second predefined maximum system transmission power level for in-band transmissions from the second communication device to the first communication device; and  
causing the second communication device to transmit below the second predefined maximum system transmission power level.

15. The method of claim 14, wherein the first communication device comprises a base station and the second communication device comprises a terminal.

1 16. The method of claim 14, wherein the first and second predefined maximum  
2 transmission power levels are equal.

3

1 17. The method of claim 14, wherein the first and second predefined maximum  
2 transmission power levels are unequal.

1 18. In a communication system, a method comprising the acts of:  
2 providing a first set of one or more channels for in-band transmissions;  
3 providing a second set of one of or more channels for in-band transmissions, the  
4 second set of channels in closer proximity to a band edge than the first set of  
5 channels; and  
6 transmitting within the second set of channels at a first power level that is less  
7 than a second power level used for transmitting within the first set of  
8 channels.

1 19. The method of claim 18, further comprising the act of:  
2 determining that communication performance of a first device is above that of a  
3 second device; and  
4 based on the determination, assigning the first device to the first set of channels;  
5 and  
6 assigning the second communication device to the second set of channels.

7